

FLIGHT

The
AIRCRAFT
ENGINEER
&
AIRSHIPS

First Aero Weekly in the World

Founder and Editor: STANLEY SPOONER

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport

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DIARY OF FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in the following list:—

1926

- July 8-24 Royal Tournament, Olympia.
July 11-27.... German Seaplane Competition at Warnemünde.
July 19-Aug. 7 French Competition for Multi-engined Seaplanes, St. Raphael-Frejus.
July 31 Entries close (at special fee) for Light 'Plane Competition, Lympne.
Aug. 9-15 French Light 'Plane Competition.
Sept. 10-17 Two-Seater Light Aeroplane Competition, Lympne.
Sept. 18 Grosvenor Challenge Cup, at Lympne.
Oct. Schneider Cup Race at Norfolk, Virginia, U.S.A.
Oct. 24-28 Coppa del Mare, Italy.
Nov. 11-15 Coppa d'Italia, Italy.
Nov.-Dec. Paris Aero Show.

EDITORIAL COMMENT.



SEAPLANES are somewhat to the fore at the moment. Mr. Cobham is on his way to Australia in one. The Marquis de Pinedo has just turned turtle in another. The Cairo-Cape-Cairo-England flight, under Commander Pulford, completed its last stage *enhydravion*, and, finally, a very important competition is being held at Warnemünde, on the Baltic, for which no less than 17 machines have been entered, and in which a considerable number of British engines are taking part. So that, one way and another, the seaplane is a topical subject just now. The attitude of *FLIGHT* towards the seaplane, and more particularly the commercial seaplane, is already well known, and we shall not here weary our readers with a repetition of the arguments in favour of a much greater use of this type in commercial work than has been made hitherto. Suffice it to say, that we welcome wholeheartedly the German competition for seaplanes intended for the carriage of mails. It is to be hoped that this competition, donated with prizes totalling little short of £20,000, may, first of all, accomplish the purpose for which it was intended: to produce German commercial seaplanes; and, secondly, and incidentally, that the example thus set by our late enemies may serve to bring forward a subject which *FLIGHT* has always had, and which, in our opinion, the British Empire *should* have, very much at heart.

It is now a good many years since we had in this country a competition for commercial aircraft, and the one we did have—at Martlesham and Felixstowe in 1920—was, it is to be feared, a little premature. It was held before we really knew very much about what was wanted, and which were the features to be chiefly aimed at. By now we have had several years' experience of civil aviation, and it should be possible to draw up a set of rules tending to produce just those features which might be expected to make for commercial efficiency and for reliability. The commercial aeroplane has been developed in the hard school of experience during the last six years or so, but the commercial seaplane seems to have received very

step-motherly treatment, and it might be that a carefully planned competition would enable us, in some measure at any rate, to make up in a relatively short space of time the leeway obtaining in this branch of civil aviation.

In this week's issue of *FLIGHT* we give very brief particulars of the German machines taking part in the Warnemünde meeting, and the barest outline of the nature of the tests that have to be passed. Space has not permitted of a detailed reference to the technical tests, and perhaps a few comments here may be of assistance. To begin with, the competing machines are required to carry a "service load" of 400 kgs. (880 lbs.), in which are included the weights of pilot, engineer, equipment, etc., but not the weight of fuel. One of the first tests consists in measuring the climb (by barograph) from 1,000 m. to 2,000 m. (3,300 ft. to 6,600 ft.), which must not take more than 15 minutes. A machine failing to complete the climb within this time must discharge load until able to do the climb in the time, and in all the following tests it must then carry the load with which the specified climb was attained.

To determine the extreme range of the machines, competitors are required to fly over a measured course of 250 km. (155 miles), the petrol consumed over this distance being measured and the extreme range, based on this consumption and the tank capacity, calculated.

The top speed of competing machines is determined over a *rectangular* course of 100 kms. (62.1 miles), the machines being timed over each "leg" so as to nullify the effect of wind. The run for taking off and the take-off speed are measured by filming the machines from behind during the start, the size of picture giving a measure of the distance (the wing span being known) at the moment of leaving the water. A stop-watch is filmed at the same time and on the same picture, so that the time to any distance can be calculated.

Considerable importance is attached to the weight, empty, of the machine, as it is considered that this is a measure of the efficiency of the construction. It was desired to incorporate also factors representing cost of manufacture, but to do so was found impracticable.

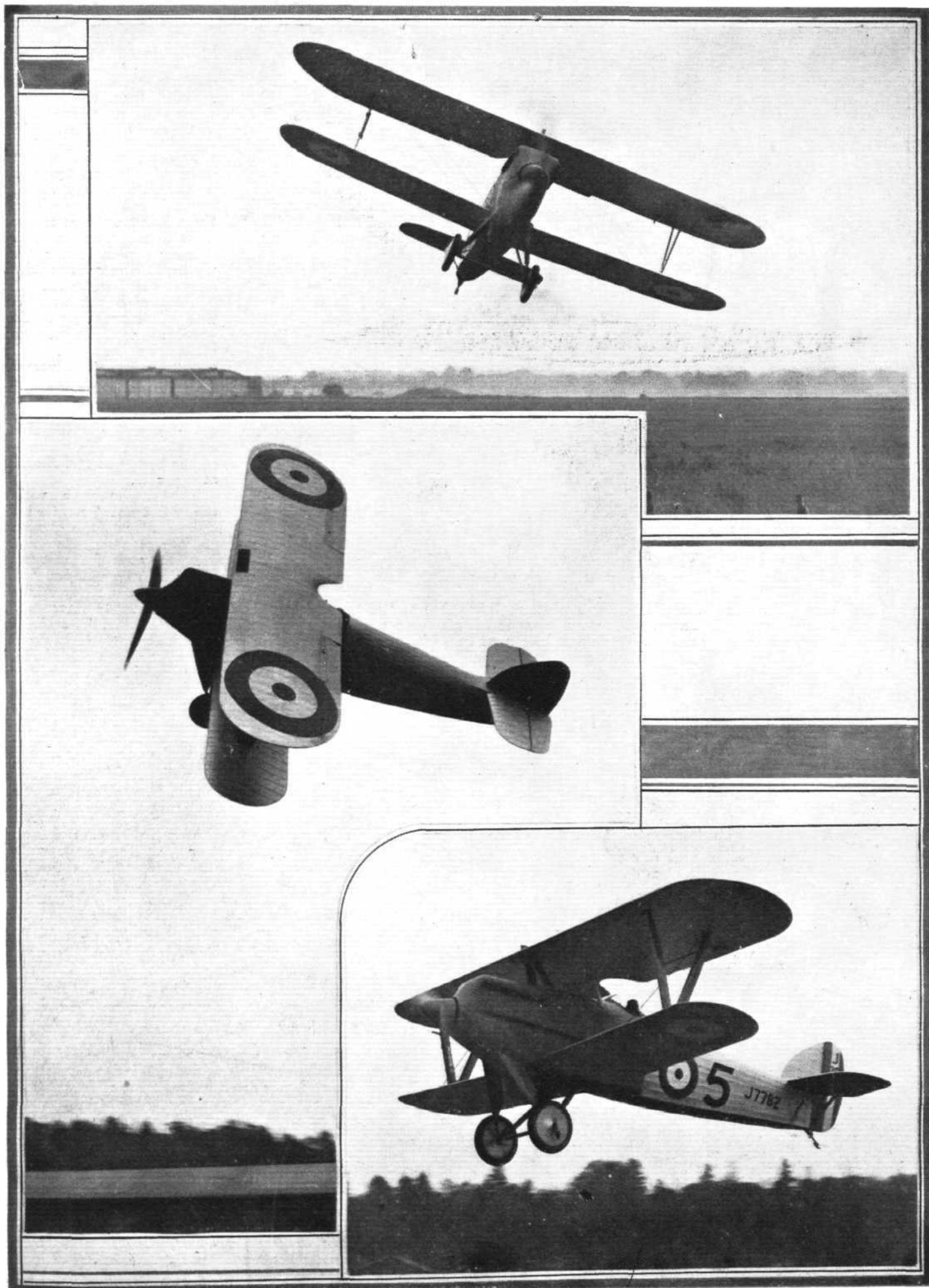
In the coastal flights the times taken between compulsory landing points give a measure of the *operational* speed of the machines, and another figure, termed "reliable" speed, is also taken into account. This "reliable" speed is so defined that it is equal to the mean operational speed when the speeds over all sections of the route are the same as the operational speed. Departures from this figure, *i.e.*, higher speeds over certain sections and lower speeds over others, detract from the "reliable" speed.

Finally, the award in the main competition will be made according to the ratio $\frac{V_{\text{measured}}}{V_{\text{calculated}}}$, in which the

measured speed is the mean of the measured top speed and the operational speed in the coastal flights. The calculated speed is worked out for each competing machine; such factors as the 400-kg. service load, the constructional efficiency as indicated by the empty weight, the climb from 1 to 2 kms., and the range calculated as already indicated, are taken into consideration. On "theoretical" grounds it is calculated what optimum speed a "normal" machine with these features could be expected to have, and the ratio of actually attained speed to theoretical speed is then used as a basis for the awards. Needless to say, we have not been able to do more than indicate in the briefest possible manner the technical aspect, but should our own authorities desire to organise a competition in this country, all the German figures, as well as the results of the Warnemünde competition, will be available, and it is a fairly easy matter to decide whether or not the German method would be likely to apply to our needs.



THE KOOLHOVEN F.K.34 : Fitted with a Hispano-Suiza engine of 450 h.p., this machine has a top speed of 204 km. (126.5 miles) per hour, and gets off in 14 seconds. The wing span is 13 m. (42 ft. 7 in.). In the photograph the machine is seen at the moment of alighting.

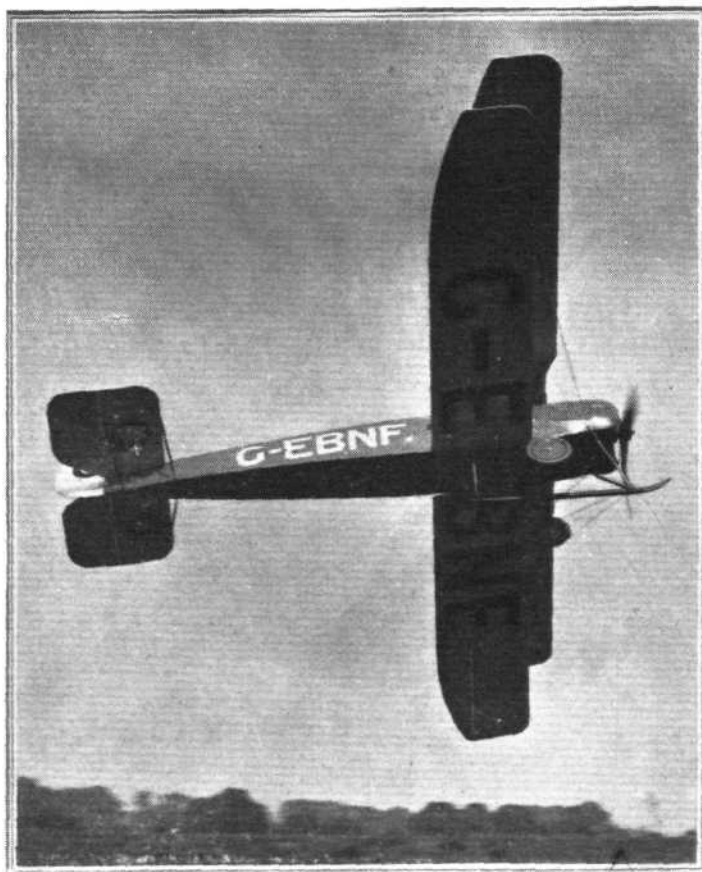


THE HAWKER "HORNBILL" in various attitudes, as piloted by Mr. Bulman (see also page 447). ["FLIGHT" Photographs]

DEMONSTRATING THE AVRO "GOSPORT"

On Wednesday of last week, July 14, a party of foreign Air Attachés and representatives, and a number of others interested, paid a visit to the London Terminal Aerodrome at Croydon to witness a demonstration of the new Avro "Gosport" training machine by Mr. Bert Hinkler, Avro's chief test pilot.

The party were motored out to Croydon in a number of Crossley cars, among which was one of the new six-cylinder models, and on arrival there Mr. Hinkler proceeded to "turn the machine inside out," in other words to show its capacity for slow and fast flying, stunting, etc. The Avro 504 is world-famous for its handling, and it was quite evident that its latest version, the "Gosport," has retained all the qualities of the older type, while incorporating a number of features not found in the prototype. As the "Gosport" has already been described and illustrated in *FLIGHT*, there is no need to give a description of it here, but we gathered the impression that the visitors were very



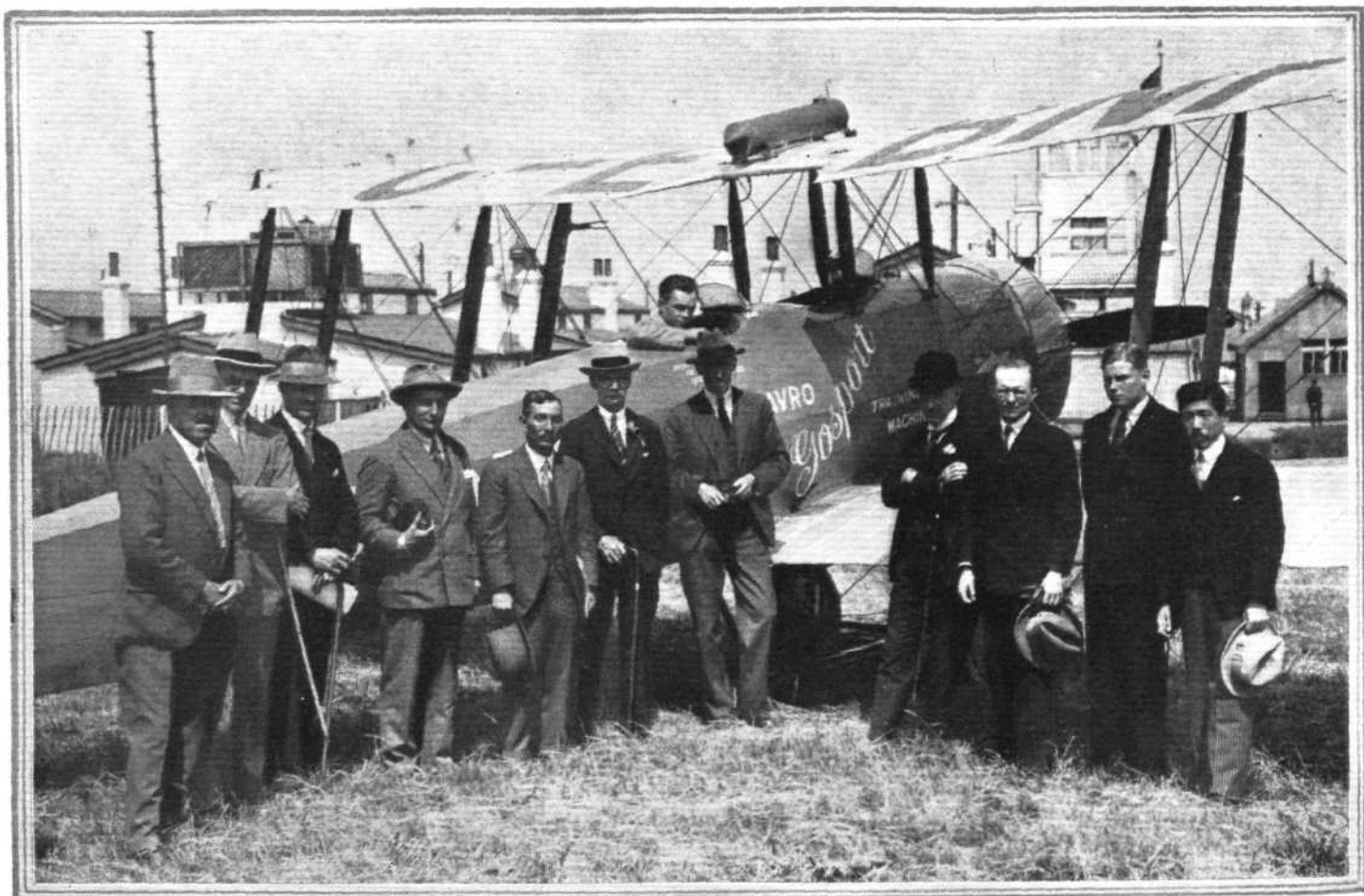
HINKLER'S BANK: The Avro "Gosport" was demonstrated at Croydon on Wednesday of last week before a number of foreign air attaches.

much struck by the way in which the machine was handled. Incidentally, it may be mentioned that Mr. Hinkler had flown down from Manchester with but one stop at Coventry to fill up his tanks.

After Hinkler's demonstration of the machine those visitors who desired to try out the machine for themselves were invited to do so, and a large number were taken for "flips," all expressing themselves delighted with the behaviour of the machine. The photograph on this page, as well as the two views on p. 443, show the "Gosport" in various attitudes, and indicate that the machine is extremely manoeuvrable, and that it can be safely "stunted," quite close to the ground—in the hands of Mr. Hinkler at any rate.

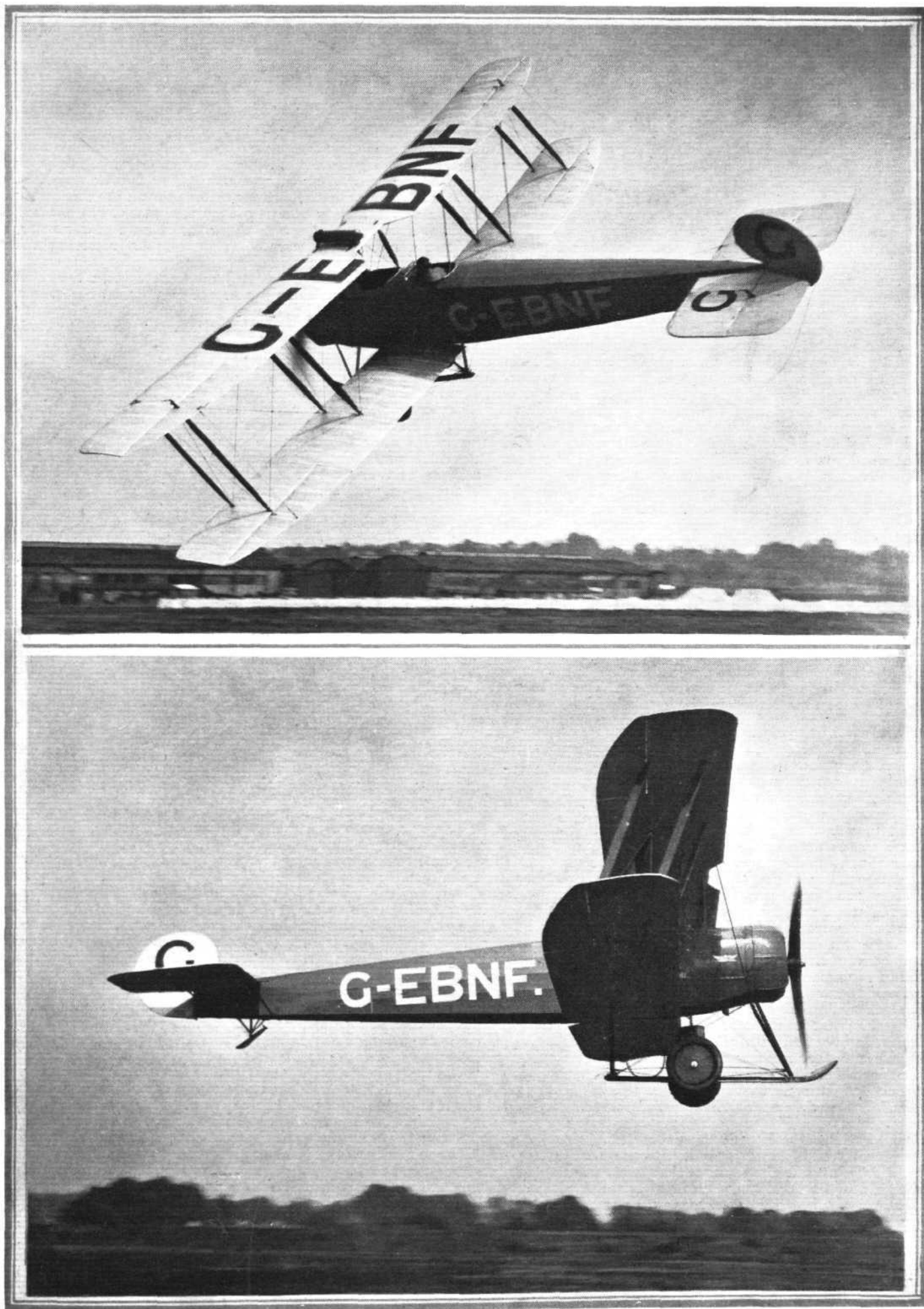
The engine with which the "Gosport" is fitted as standard is the Gnome 100 h.p. *m n soupape*.

At the end of the demonstration the visitors were motored back to town, while Mr. Hinkler flew the "Gosport" back to Manchester.



FOREIGN AIR ATTACHES AT CROYDON: This group, standing in front of the Avro "Gosport," includes, from left to right: Mr. John Lord (Avros), Sqdn.-Ldr. Kenny, Mr. Vladimirov, a representative of Brazil, Comdr. Floriose, Maj. Kennedy, Maj. Scott, Mr. Headley Thompson, Mr. Toll, Mr. Segrave, and Engineer Kunugi. In the cockpit, Mr. Bert Hinkler.

[*"FLIGHT"* Photographs]



[“FLIGHT” Photographs]

THE LATEST VERSION : These two views show the Avro “Gosport” in flight, piloted by Mr. Bert Hinkler. This training machine was demonstrated, on July 14, before a number of foreign Air Attaches at Croydon Aerodrome, and created a very favourable impression. Like the standard 504, the “Gosport” is very easy to fly, and at the same time it is very manœuvrable.

THE PROGRESS OF THE BRISTOL "JUPITER"

Appreciations Coming in from Far and Near

WHEN the high-power, radial air-cooled engine first made its appearance opinion quickly became divided into two schools, one holding that the defects from which the radial suffered were such as to outweigh any advantages it might possibly have; the other saw in the radial the solution of all aero-engine problems and regarded it as the type of the future. Although at the moment it could scarcely be claimed that the latter school has as yet been proved entirely correct, there is by now no doubt at all that the former school was emphatically wrong, and that already the radial aero engine can be said to have got over its initial difficulties and to have proved itself the equal in nearly every respect of the water-cooled engine. There is great satisfaction in the reflection that Great Britain can claim to have led the world in the development of the radial air-cooled engine, this being no idle claim but a plain statement of fact, a statement, moreover, which is backed up by opinions expressed by no less an authority than the French Under-Secretary of State for Air, M. Laurent Eynac. Of the British radial aero engines the Bristol "Jupiter" has done much to raise the prestige of British engines abroad, being now manufactured under licence in several European countries, and following are some extracts from foreign journals, from letters written to the Bristol Company, and from other sources, which serve to give an excellent idea of the esteem in which the Bristol "Jupiter" is held abroad. Incidentally, in this connection, it is of interest to refer to our article on the German seaplane competition at Warnemünde, in which, although the competition is a national one, quite a considerable number of "Jupiters," British and French, are being employed.

"Jupiter" in French Parliament

Reference has been made above to a statement made by M. Laurent Eynac. This statement, which may be taken to have been occasioned by a certain section of the French aircraft industry having looked askance at the use of so many "Jupiters" in the French air service, was made in a debate in the French Parliament, and the following passages are quoted from the *Journal Officiel* :—

"If your report had been drawn up eight months ago, it would have dealt with another engine and, if it is not mentioned in your report, it is because facts have outweighed criticism. As nobody has referred to it, I will, myself, speak of the 'Jupiter' engine.

"You all know, gentlemen, that car or aircraft engines are cooled by means of a water radiator. Radiators are most fragile articles. A bullet through the radiator of an aeroplane spells a fatal ending. It is, therefore, easily understood that there is a great advantage in fitting to war machines engines without radiators, namely, air-cooled engines.

"Three or four years ago, in the course of a friendly interview with French manufacturers, I advised them to consider the production of this new type of engine. All they had to do was willingly to make an effort—hard perhaps, but necessary—in order to succeed. They preferred to continue in improving the classical types of engines, where their prime was most in evidence. What happened? Today more than half the fighting units of the British Air Force are fitted with air-cooled engines, whereas the only engine of this type, really efficient and manufactured here, is the 'Jupiter' engine made under British licence. It is up to our designers to conquer in this new field the lead they hold where water-cooled engines are concerned.

"Three years ago the French Navy, despite certain resistance, ordered a few 'Jupiter' engines. It was no easy matter; it caused a bursting of a storm in that class of the press already mentioned. The Naval Minister who had taken this decision quite deliberately because facts seemed pertinent to him, became alarmed. He came to me at the time, I remember it well, he was inclined to cancel the order. I advised him not to give way, pointing out his rather timid attitude and regretting he had not been forestalled by the War Minister.

"This was three years ago. What are the consequences? They are the Goliath machines fitted with 'Jupiter' engines which last year I had to borrow from the Navy for action in Morocco, for they were the only machines capable of carrying out efficient bombing raids against the Riff positions. I need not tell you that in the orders given last year by the Ministry of War I placed the 'Jupiter' in the position it deserved. I know, however, of several French firms building

powerful air-cooled engines, and I do not doubt their prompt and outstanding success. The Hon. M. Gamard has reproached me for having issued the order rather late and in two parts—what were the reasons? I delayed the complete yearly order because I was awaiting the results of the Scout Competition in order to make a more judicious selection from the competing machines, but, having to wait too long for these results, I had to take a decision and place the greatest part of our order, reserving, however, a part of it for engines receiving the highest awards in the Scout Competition.

"Some speakers have credited me with certain technical knowledge. I thank them for it. It may or may not be a happy chance, unlikely to occur again, that the War Minister of today is a man who, for the past 20 years has been interested in the theory and progress of aviation. But there is no need for a Minister to be a specialist in order to decide to the best advantage on the choice he must make. He must have decision, character and not shirk the responsibilities. He must have a psychological knowledge of his advisers and of the aircraft industry. With these qualifications a man will be up to his duty whatever his position. With commonsense, the scorn of criticism from the underlings and the contempt of attacks, I have overcome the difficulties preventing the choice of the Jupiter engine."

"Jupiter" Wins French Zenith Cup

The Zenith Cup, which is awarded upon a basis of the lowest fuel consumption in relation to useful load carried, has been won by a "Jupiter"-engined Farman machine.

The competition took place during July 3 and 4. On the first day a flight was made from Paris to Lyon, a distance of 385 kms. (239.23 miles) and on the second day the return journey was made. Seven competitors started in the race, the power units used including engines of Jupiter, Salmson, Anzani and Walter types. The final official classification was :—

	Aircraft.	Engine.	Average Speed		Consumption per	
			Kms.	Miles.	Kgs.	Lbs.
1st ..	Farman	Jupiter	143.17	88.9	0.253	0.557
2nd	Caudron	Salmson	123.49	76.73	0.256	0.564
3rd ..	Albert ..	Salmson	118.58	73.68	0.258	0.568

In addition to the Cup the Farman Company were awarded a prize of 30,000 francs, and the pilot received a prize of 3,000 francs. The carburettor fitted to the "Jupiter" engine on the winning machine was of the Bristol "Triplex" type.

The Zenith Cup was presented by the Société du Carburateur Zenith in 1923 for three annual competitions for commercial aircraft, the winners being the aircraft which covered the complete course with the lowest petrol consumption for weight carried.

The "Jupiter" in Holland

As a result of the experience with an experimental machine fitted with the "Jupiter" on the air lines, the Dutch K.L.M. company has become favourably impressed, and the following reference shows the opinion of this firm of the value of the "Jupiter" :

An announcement issued by the K.L.M. states that their F.VIIA machine fitted with the "Jupiter" air-cooled engine has given very satisfactory results.

The "Jupiter" engine has proved capable of over 211 hours flying without overhaul, and the F.VIIA machines show an advantage of 65 per cent. over the F.VII type, the overhaul hours being only 20 per cent. of those required for the engines previously used. For three F.VII machines five engines were required, whereas on service this summer the K.L.M. will have ten F.VIIA "Jupiter" machines with only 13 engines.

At the beginning of the summer service the K.L.M. fleet will include 10 F.VIIA "Jupiter" machines, and two F.VIIs in which the original engines have been replaced by "Jupiters."

And at Home

Apart from its increasing use in the machines of the R.A.F., the "Jupiter" is becoming popular in commercial aviation, and in civil flying generally. Thus, it will be remembered that the Bristol "Bloodhound" with "Jupiter" engine

which first flew some 25,000 miles over the Croydon-Bristol, etc., circuit, took part, after its return from a further flight to Cairo and back, in the impromptu race at Hendon during the King's Cup race.

Concerning the Cairo flight the following items are of interest:

The engine in the "Jupiter Bloodhound" was precisely the same engine which carried out the 25,000-miles flight, and only one valve and spring had been replaced. Before the flight started seals were again placed upon the engine. The first day's flight was concluded at Brindisi, about 1,240 miles. Unfortunately, there was some difficulty with the Italian Military Authorities the next morning, so that the start was delayed by 1½ or 2 hours. A flight was, however, made to Athens and from there to Sollum; a small amount of time was lost here in locating the petrol dump and in refilling, and as a result darkness was coming on before Cairo was reached, and it was decided to come down near an Arab camp and stay

for the night. The next morning a flight was made to Cairo and a return trip was made to Sollum on the same day. On the next day the flight was continued to Brindisi, via Athens, but here, unfortunately, a burst tyre delayed progress for a day or so, and at Pisa the weather was found too unfavourable to allow of a direct journey being made over the Alps. Here, however, the party were tremendously well received by the Italians and were made the guests of the Marquis de Pinedo. As the weather over the mountains did not improve, the return was made via Marseilles. The aeroplane landed at Croydon on Saturday afternoon and almost immediately heard that a race was about to take place at Hendon, so that they made their way straight to that aerodrome and just had time to fill up with petrol before taking their place on the line. The excellent running of the engine was very impressive to those who had any knowledge of the amount of work this engine had done, and it was noted that not a single seal had been broken.

LIGHT 'PLANE CLUB DOINGS

London Aeroplane Club

WILL members kindly note that the Club will close down on Friday, July 30, and re-open Monday, August 9.

Flying Display at Rochester.—On Saturday, July 17, GEBNY, the new D.H. "Moth" recently presented to the Club by the Duke of Sutherland, was present at Rochester in charge of Capt. F. G. M. Sparks, Mrs. Elliott-Lynn, and Capt. H. Broad on the D.H. Moths, and Flight-Lieut. Ritchie of the Seven Aeroplane Club on the D.H.51 were also present.

The Aerial Golf Competition was the interesting event on the programme and resulted as follows:—

1st prize, £20.. London Aeroplane Club (Capt. F. G. M. Sparks).

2nd prize, £10.. Seven Aeroplane Club (Flight-Lieut. Ritchie).

Prizes for stunt flying were also presented to Capt. H. Broad and Mrs. Elliott-Lynn.

Yorkshire Pageant.—The London Aeroplane Club is proposing to send two D.H. Moths to represent the Club at the Yorkshire Pageant at Leeds on Saturday, July 24, 1926. The machines will be flown to Leeds on Friday by Capt. F. G. M. Sparks and Capt. Lamplough, with W. Hay and Major K. M. Beaumont as passengers. In addition to the Club machines, Mrs. Elliott-Lynn, Sir John Rhodes and Mr. D. Kittell will, it is hoped, compete on their privately-owned D.H. Moths.

In the various events on the Programme the following members will represent the Club:—

Inter-Club Race.—W. Hay and G. H. Craig.

Inter-Club Relay Race.—N. Jones, Major K. M. Beaumont, A. R. Ogston, Mrs. Elliott-Lynn, G. H. Craig, W. Hay.

Open Handicap.—Capt. F. G. M. Sparks and Capt. Lamplough.

Pilot Instructors' Race.—Capt. F. G. M. Sparks.

Private Owners' Race.—Sir John Rhodes, Mrs. Elliott-Lynn, D. Kittell.

Bomb-Dropping Competition.—W. Hay, G. H. Craig, Major K. M. Beaumont, N. Jones, A. R. Ogston, Capt. Lamplough, Capt. F. G. Sparks.

Week's Flying.—The total flying for the week ending July 19, 1926, was 55 hours 25 mins.

The following members received flying instruction:—Miss O'Brien, R. V. Banks, G. Eady, S. H. J. Garne, Air Vice-Marshal Sir Sefton Branner, G. Wallcousins, J. A. Simson, R. G. Edkins, B. B. Tucker, Capt. Portway, T. H. O. Richardson, A. E. Leeding, S. D. Durkan, H. Petre, T. W. Heath, H. F. Wright, W. Hay, E. A. Cook, L. Martin, R. Malcolm, G. C. Bonner, E. A. Lingard, S. O. Bradshaw, A. J. Richardson, G. M. Randall, S. Nesbitt, G. W. Hall, E. W. Russell, F. C. Elford, P. O. A. Davison, O. J. Tapper, H. Solomon, H. R. Thomas, Mr. Hamilton, Lady Douglas Hamilton, P. W. Hoare, H. R. Presland, L. G. Sykes, G. Lyon, S. J. Bassett.

The following members made solo flights:—W. Hay, O. J. Tapper, Major K. M. Beaumont, N. Jones, R. Malcolm, R. C. Presland, Mrs. Elliott-Lynn, Capt. W. Roche-Kelly, A. Lees, A. H. Dalton, G. Wallcousins, N. J. Hulbert, E. S. Brough, Squadron-Leader M. E. A. Wright, A. R. Ogston, E. E. Stammers, S. O. Bradshaw, G. H. Craig.

Special instruction in Navigation was given to G. H. Craig, and L. C. J. Mitchell.

The following Associate Members were given joy rides:—Mrs. Bailey D. Usher, Miss Dalton, Miss Oldham.

The Lancashire Aero Club

MACHINES IN USE: GEBLY and GEBMQ. The weather has been good. Mr. Stack gave instruction to:—Messrs. Agar, 3 hrs. 5 mins.; Hardy, 2 hrs. 15 mins.; Fallon, 2 hrs.; Costa, 1 hr. 35 mins.; Gattrell, 1 hr. 35 mins.; Leeming, 1 hr. 20 mins.; Leigh, 55 mins.; Jenkinson, 55 mins.; Brown, 35 mins.; Anderson, 30 mins.; Gerrard, 30 mins.; Fray, 30 mins.; Newton, 25 mins.; Goodyear, 20 mins.; Collinson, 20 mins.; Rodman, 15 mins. Barnes, 15 mins. Total, 17 hrs. 20 mins.

Mr. Cantrill gave instruction to:—Messrs. Leeming, 1 hr. 40 mins.; Newton, 20 mins. Total, 2 hrs.

Mr. Scholes gave instruction to:—Messrs. Bert, 30 mins.; Anderson, 30 mins.; Lower, 25 mins.; Leeming, 20 mins. Total, 1 hr. 45 mins.

Solo flights by Messrs. Wilkinson, 2 hrs.; Goodyear, 1 hr. 10 mins.; Michelson, 1 hr. 5 mins.; Lacayo, 45 mins.; Goodfellow, 35 mins.; Leeming, 25 mins. Total, 6 hrs.

Mr. Lacayo gave D. F. Dyson a "joy-ride," 30 mins.

Tests occupied 1 hr. 10 mins. Total for week, 28 hrs. 55 mins.

Dr. Wilkinson made the required flights for his certificate on Tuesday.

Cross-country flights to Sealand Aerodrome, Chester, with Mr. Stack were made by Messrs. Agar, Hardy and Leeming on Thursday, Friday and Saturday.

Members are again reminded that the aerodrome will be closed at 4 p.m. on July 23 until 2 p.m. on July 26.

The Midland Aero Club, Ltd.

REPORT for week ending July 10:—Flying was suspended on Saturday, and Sunday, July 3 and 4, as Major Dennison (Secretary), Capt. McDonough (Chief Instructor) and Mr. W. Halland (Ground Engineer) and a party of

members went down to Hendon for the R.A.F. Display. Everyone was very much impressed by the wonderful flying, and the beautiful formation work came in for particular praise.

On the following Sunday the party, at the kind invitation of the Aircraft Disposal Co., inspected the factory at Croydon, and Mr. O. E. Olney received the visitors, and with Messrs. H. H. Perry and G. W. Howland as guides, a most interesting morning was spent going through the huge establishment. After lunch an inspection of Croydon Aerodrome and the premises and flying stock of Imperial Airways took place, and thence across to Stag Lane, where the party was most hospitably received by the London Aeroplane Club, and served with tea by Mrs. Sparkes and her lady assistants. Thereafter home after a wonderfully interesting week-end.

On Wednesday afternoon, Capt. McDonough flew EBLW down to Hendon for the King's Cup Race. The entry of this machine was made practically at the last moment, and only a very short time was available in which to put in any special work in timing up the machine and Cirrus engine.

As is reported elsewhere Capt. McDonough completed the course, and was therefore one of the five survivors of the fourteen starters. A very creditable performance indeed and a further demonstration of the excellent qualities of the De Havilland Moth, and Cirrus engine. The machine returned to Castle Bromwich on Sunday afternoon.

Enamelled badges and also transfers for attachment to Moro Car screens, etc., are now available to members free of charge. The tuition work for the period under review has been seriously hampered by the long grass on the Aerodrome, and only totals some 20 hours. The following members took flying instructions:—

A. R. Miller; H. Willis, R. Jackson, S. H. Smith, L. Brighton, W. Swann, G. Perry, A. B. Gibbons.

During the period Mr. A. R. H. Miller went solo. Grass cutting is now in operation and full flying tuition work is again in progress.

REPORT for week ending July 17.—The total flying time for the week was 10 hours 35 mins.

The following members had flying instruction:—O. L. Richards, C. Fellows, S. H. Smith, W. Swann, L. Brighton.

The following members flew solo:—H. Willis, L. Brighton, G. Perry, W. Swann.

Test flights took 35 minutes.

On Thursday a new addition to the Club flying stock was delivered, this being an Austin "Whippet" (45 h.p. Anzani), which has just been purchased from Flt.-Lieut. Soden, R.A.F., who brought it over by air. It is anticipated that the acquisition of this very efficient and useful little machine will be a considerable benefit to our Club members who are flying solo.

The Newcastle-upon-Tyne Aero Club, Ltd.

FLYING report for week ending July 18.—Total flying time, 38 hrs. 50 mins. 12 hrs. 35 mins. on LX and 26 hrs. 15 mins. on LY. Until Saturday only one machine, LY, was on service. The weather was very bad, almost continual rain, on Sunday, but 8½ hours' flying was completed. Mr. J. D. Parkinson joined the Club on Monday evening and on Tuesday a full day's instruction was put in, and it was very satisfactory to report that there was a good turn up of members for instruction each day during the week, as the following shows: Hours flown under instruction with Mr. Parkinson, 30 hrs. 25 mins.; solo, 5 hrs. 55 mins.; passenger flights, 1½ hours; tests, including Mr. Parkinson's first flight on the "Moth," occupied 1½ hours.

Members who flew under instruction:—Mrs. Mareks, Miss Leathart, Col. Sir Joseph Reed, Messrs. Whitfield, L. Smith, Detton, Phillips, Davidson, Howard, MacKay, Somerville, Stawart, Thirlwell, Bruce, P. R. Kennedy, E. C. Kennedy, Irving, Bainbridge, Palmer, George, Sandilands, C. Thompson, A. Bell and Dr. Dixon. Secondary dual, Messrs. N. S. Todd, R. N. Thompson, MacMillan.

The following flew solo:—Messrs. MacMillan, C. Thompson, L. Smith and Dr. Dixon.

Pilot members who flew with the passengers named:—Mr. Baxter Ellis, with Mr. Woodeson; Mr. Forsyth Heppell, with Mr. H. Ellis; Mr. N. S. Todd, with Mr. J. Bell and Mr. Caddies; Mr. R. N. Thompson, with Mr. W. P. Gibson and Mr. A. Bell.

Passengers with Mr. Parkinson:—Mrs. R. N. Thompson, Miss Minnis, Mr. Laybourne, Mr. Waltz and Mr. Rasmussen.

Mr. L. Smith carried out his first solo flight on Saturday morning, following this up with longer flights alone on Saturday evening and Sunday, putting up a good show throughout.

On Wednesday Mr. Parkinson flew, with Mr. J. M. Davidson as passenger, to Bishop Auckland, where he carried out some excellent exhibition flying near to the Bishop's Park, where a fête was being held by the Bishop Auckland Conservative Association. On Sunday he flew to Stockton, taking a medical gentleman, a member of the Club, who flew to attend to an urgent case there.

Altogether it has been a very successful week, and a good beginning after the slack period recently experienced. Given good weather it is hoped that it will be possible to improve on this in the coming week.

VACANCIES AS AIRCRAFT APPRENTICES

Good Openings in the Royal Air Force

THE Air Ministry announces that 500 aircraft apprentices, between the ages of 15 and 17, are required by the Royal Air Force for entry into the Schools of Technical Training, Halton, Bucks, and Flowerdown, near Winchester. They will be enlisted as the result of an open competition, and of a limited competition held by the Civil Service Commissioners and the Air Ministry respectively. Successful candidates will be required to complete a period of 12 years' regular Air Force service from the age of 18, in addition to the training period. At the age of 30 they may return to civil life or be allowed to re-engage to complete time for pension.

Full information regarding the aircraft apprentice scheme, which offers a good opportunity to well-educated boys of obtaining a three years' apprentice course of a high standard, and of following an interesting technical career, can be obtained on application to the Secretary, Air Ministry, Kingsway, London, W.C.2.

Approximately 2,500 aircraft apprentices have already completed their training at the technical schools of the Air Force, and the annual output is now in the neighbourhood of 1,000 fully-trained aircraftmen.

The *Open* Competition, for which a fee of 5s. is charged, is, as its name indicates, open generally to boys within the age limits who forward completed application forms to the Secretary, Civil Service Commission, Burlington Gardens, London, W.1, not later than September 2. The sons of officers, warrant officers, and senior N.C.Os. of the three services who wish to enter as aircraft apprentices receive special consideration. In their case applications for nomination should be made to the Secretary, Air Ministry, Kingsway, London, W.C.2, not later than August 12.

All candidates for the *Limited* Competition must receive a nomination before they can attend this examination. These nominations must be received by the Air Ministry from the nominating authorities not later than October 5. If they are still at school candidates should apply to their headmaster with a view to obtaining a nomination from the local education authorities; if they have left school, application can be made to the Advisory Committee for Juvenile Employment in their area. There is no fee for this examination, which is carried out at local centres in each area where boys are nominated.

The principal trades open to boys are carpenter-rigger, aero-engine fitter and wireless operator mechanic. The apprentices are given a thorough training in their trade by highly-qualified technical instructors and their general education is also carried on simultaneously by civilian schoolmasters.

During the training period the rate of pay is 7s. a week for the first two years and 10s. 6d. a week thereafter until the apprentice has both attained the age of 18 and been posted to a unit on completing his training. When he is posted to a unit for duty as an aircraftman, the rate of pay varies from 3s. 3d. to 5s. 6d. per day according to the success attained in the passing-out examination. They also receive free board and lodging. In addition, a few apprentices of special promise proceed to the Royal Air Force Cadet College for training as commissioned officers.

For the remainder opportunities arise later to volunteer to qualify in flying and become sergeant pilots. From amongst sergeant pilots a few are periodically selected for commissioned rank.

ACCOUNTANT OFFICERS, ROYAL AIR FORCE

THE Air Ministry announces that an examination of candidates for commissions as Accountant Officers will be held in the latter part of September, 1926, under the scheme inaugurated in 1924 for entry into the commissioned ranks of the Accountant Branch of the Royal Air Force.

The number of vacancies to be filled immediately from this examination will probably be not less than ten and further appointments may be made at a later date to fill vacancies arising between this competition and that of next year.

Candidates must be between 22 and 26 years of age on October 1, 1926, but an extension up to 30 years of age may be granted in certain circumstances on the ground of previous service in the Forces.

Applications, which must be made on the prescribed form obtainable from the Secretary, Air Ministry, Kingsway, London, W.C.2, should reach that Department not later than August 15, 1926. Applications received after August 31, 1926, will not be accepted in any circumstances.

The examination will be held in London and will comprise:—

- (1) An interview before a Selection Board.
- (2) A written examination in English and general knowledge.
- (3) A written examination in Accountancy.

The written examination, for which a fee of £4 is payable, is conducted by the Civil Service Commissioners and will be held shortly after the interview. Part (2) of the examination will require no special preparation and will consist of essay writing and précis and questions to test the candidate's knowledge of matters of general interest. Part (3) will consist of book-keeping and accountancy, excluding partnership accounts and executorship accounts, the standard being that of the final examinations of the Institute of Chartered Account-

ants and of the Society of Incorporated Accountants and Auditors.

Copies of the papers set at the examination for Accountant Officers held in September, 1925, may be obtained from H.M. Stationery Office, Adastral House, Kingsway, London, W.C.2, price 1s. net.

Candidates who from their application forms appear to be suitable will be invited to appear for interview by the Selection Board, and those who are passed by the Selection Board, and also by a medical board, will be admitted to the written examination.

Appointments will be offered to candidates according to the marks obtained in the competition. Successful candidates will be appointed as Pilot Officers on probation, and on satisfactory completion of a two months' period of instruction will be posted to a unit for accountant duties. At the end of twelve months' service they will, if their service has been satisfactory in all respects, be confirmed in their appointment and promoted to the rank of Flying Officer. Promotion beyond this rank will be by selection within an approved establishment.

The emoluments of Accountant Officers consist of pay and services in kind (accommodation, fuel and light, rations and personal attendance) or allowances in lieu if the latter are not available. At present rates, pay plus the cash allowances referred to, range according to rank and length of service, from £401 a year for a Pilot Officer (unmarried) to £1,146 a year for a Group Captain (married), the increase on promotion from Pilot Officer to Flying Officer being £70 a year.

The detailed regulations and necessary forms of entry may be obtained on application to the Secretary, Air Ministry, (S.7), Kingsway, London, W.C.2.

Cobham's Progress.

LAST week we left Mr. Alan J. Cobham, who is flying to Australia on a D.H.50 J with Armstrong-Siddeley "Jaguar" engine, at Bushire, where he arrived at 8.50 a.m. on July 13 from Basra. After a stay of rather less than 24 hours Cobham left Bushire, in bad visibility, on the morning of July 14, arriving at Bandar Abbas 11.30 a.m. On the following day, July 15, the sea was too rough to allow of

taking off, and continued rough for several days, so that it was not until July 18 that he was able to get away. During an attempt to start on the previous day he damaged an under-carriage strut, but this was repaired, and a start was made early in the morning, Charbar being reached and a start made for Karachi, where the machine alighted after having covered some 740 miles during the day. After a stay at Karachi the aviators left again on July 20, reaching Bahawalpur on the same day.



[“FLIGHT” Photographs]

THE HAWKER “HORNBILL”: Among the single-seater fighters which made their first appearance at the R.A.F. Display few came in for more favourable comment than the machine here shown. The engine is a Rolls-Royce “Condor.” (See also page 441.)

THE GERMAN SEAPLANE COMPETITION

Many British Engines Used

LAST week we announced briefly that 13 machines had, up to the time of going to press, been entered for the German seaplane competition which is at present being held at Warnemünde on the Baltic. Since then the total number of machines entered has increased to 17, four machines having been entered late. A gratifying feature of the competition, which is being conducted with the object of producing air-worthy and seaworthy seaplanes suitable for mail and passenger carrying, is that quite a considerable number of British engines are being used by the German constructors, who thus pay a very high compliment to British aero engine firms. The types of British engines represented are Napier "Lion," Bristol "Jupiter," and Rolls-Royce "Eagle." Following is a list of the machines entered and their engines:—

No.	Entrant	Type	Engine
1	Luftfahrzeug-	L.F.G. V59	240 BMW. IV
2	Gesellschaft,	L.F.G. V60	240 BMW IV
3	Stralsund ..	L.F.G. V61	400 Bristol "Jupiter"
4	Caspar Works ..	C.29	300 Hispano-Suiza
5	Rohrbach- ..	Ro. VII	2-230 BMW. IV.
6	Metallflugzeubau	do.	do.
7	Junkers- ..	W.33	300 Junkers L.5
8	Flugzeug-Werke	W.34	425-530 "Jupiter" 9A b.
9	Ernst Heinkel ..	H.E.5	450 Napier "Lion"
10		H.E.5	420 Gnome and Rhône "Jupiter"
11	Flugzeugwerke ..	H.D.24	230 B.M.W. IV.
12		H.D.24	230 B.M.W. IV.
13	Ernst Gebrecht ..	W.3	3-110 Thulin Rotary
14	Dornier ..	Do. E.72	420 "Jupiter"
15	Metallbauten ..	Do. E72	420 "Jupiter"
16	Severa Co. ..	Junkers A.20	310 Junkers L.V.
17	Ernst Heinkel ..	Heinkel S.I.	360 Rolls-Royce "Eagle 9"

The German Seaplane Competition at Warnemünde, which is organised by the Deutscher Luftfahrt Verband E.V., is donated with the following handsome

Prizes

First Prize in the General Competition, 250,000 Mark. Reliability Prize, 65,000 Mark. Subsidiary Competition Prize, 50,000 Mark. Subsidiary Competition Prize of the German

Ministry for Posts, 10,000 Mark. To these main prizes must be added sundry minor consolation and special prizes, which bring the total of prizes offered up to the somewhat imposing figure of 394,000 Mark (about £19,330 at the present rate of exchange.)

The Competition

The German Seaplane Competition is being flown to a series of somewhat complicated formulæ, into the details of which we have not the space to go. It may be said, however, that the Competition is divided into three separate and distinct parts: A performance competition designed to determine the efficiency of competing machines, a series of coastal flights intended to determine the operational qualities and reliability of the machines, and finally a seaworthiness test.

The performance trials commenced on Monday, July 12, and will conclude on Friday 23. During the next four days flights along the coasts of the Baltic and the North Sea will be carried out, the course for the first day's flight being from Warnemünde to Norderney. On July 25 the machines fly back to Warnemünde from Norderney. On July 26 they go east to Memel and back to Pillau, and finally, on July 27, the return journey to Warnemünde is made. In these coastal flights a number of compulsory alightings have to be made at various towns, the total distance of the four days' flying being 4,260 kms. (2,662 miles).

The conclusion of the competition will be formed by a series of seaworthiness trials, in which the machines will be required to carry out starts, alightings and various taxiing manoeuvres in a seaway of amplitude four. In this section machines will either pass or not pass, there being no detailed classification.

The Machines

Space does not permit of a detailed description of all the machines taking part in the German Seaplane Competition, even were such of interest to British readers. In the following notes, however, we give very briefly such particulars as will serve, in conjunction with our illustrations, to enable readers to form a general idea of the various types represented.

No. 1, the L.F.G. V.59, is a low-wing monoplane (twin-float seaplane) with 230 h.p. B.M.W. type IV engine. This engine, by the way, is extensively used in the competition, and it may be recalled that the type is famous for its very

Two L.F.G. machines at Warnemünde: On the left the nose of V.61, with Bristol "Jupiter" engine. On the right, No. 2, the V.60 biplane, which has a 240 h.p. B.M.W. IV engine.





At Warnemünde :
No. 3, the L.F.G.
V.61, with Bristol
"Jupiter" en-
gine, being
weighed. This
machine is of all-
metal construc-
tion.

low fuel consumption. The machine, like Nos. 3 and 4, was designed and constructed by the Luftfahrzeug Gesellschaft of Stralsund, one of the oldest of German aircraft firms. The type V.59 machine is of all-metal construction, and may be said to resemble the Junkers machines in its lines, while the construction is more nearly akin to that of Dr. Claudius Dornier. The V.59 has a wing area of 52 sq. m. (560 sq. ft.) and weighs 1,430 kgs. (3,146 lbs.) empty, while the total loaded weight is 2,200 kg. (4,840 lbs.). It is credited with a top speed of 151 km./hr. (94.4 m.p.h.).

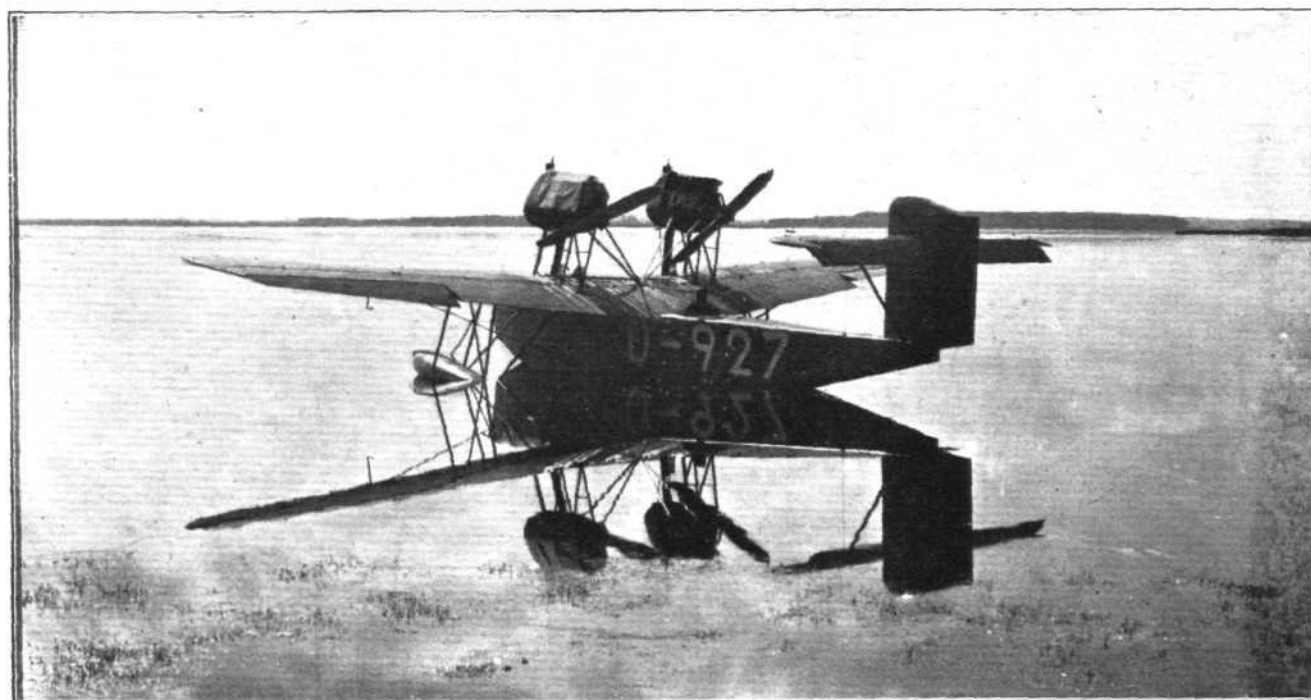
No. 2, the L.F.G. V.60, is a tractor twin-float seaplane with normal biplane wings. The engine is the 230 h.p. B.M.W. IV, and the wing area is 52 sq. m. (560 sq. ft.). The weight empty is 1,350 kgs. (2,970 lbs.), and the loaded weight 2,050 kgs. (4,510 lbs.). The top speed is stated to be 152 km./hr. (95 m.p.h.).

No. 3, the L.F.G. V.61, is similar in every way to No. 1, but is of interest to British readers on account of the fact that it is fitted with a Bristol "Jupiter" engine. This naturally alters both the item weights and the performance. Unfortunately figures relating to weight are not available at the moment, but the estimated top speed is 185 km./hr. (115.6 m.p.h.).

No. 4, the C.29, is a twin-float tractor seaplane (biplane) designed and built by the Caspar Works, also one of the early German aircraft firms. The engine is a 300-h.p. Hispano-Suiza. This machine is chiefly remarkable for its fuselage, which is of very small cross-sectional area, and which is similar, as seen from the side, to a thick wing section, bi-convex, but with the more deeply cambered curve on top. The wing area is 47 sq. m. (506 sq. ft.), and the total loaded flying weight is 1,800 kgs. (3,960 lbs.). The top speed is given as 200 km./hr. (125 m.p.h.).

Nos. 5 and 6, the Rohrbach Ro.VII Flying-Boats, are generally similar, as regards their general design, to the Rohrbach types known in this country, of which some are being constructed under licence in this country by Wm. Beardmore's. They are, however, very much smaller, as the accompanying photographs will show, but unfortunately no data are available concerning their weight or performance. Both machines are fitted with two 230 h.p. B.M.W. IV engines, and both have the flat-sided boat hull familiar from other Rohrbach machines.

No. 7, the Junkers W.33, is a typical low-wing monoplane of all-metal construction, with the corrugated fuselage and wing covering and tubular multiple spar construction in



ROHRBACHS AT WARNEMÜNDE : The two flying-boats with two 230 h.p. B.M.W. IV engines are similar in lines to the large Rohrbach flying-boats now being built in this country by Wm. Beardmore, but are very much smaller.

A Beaching Trolley: The wheel gear of the Rohrbach is made of Duralumin and is, presumably, less cumbersome than it appears in this photograph. Note the cowling of the B.M.W. engines.

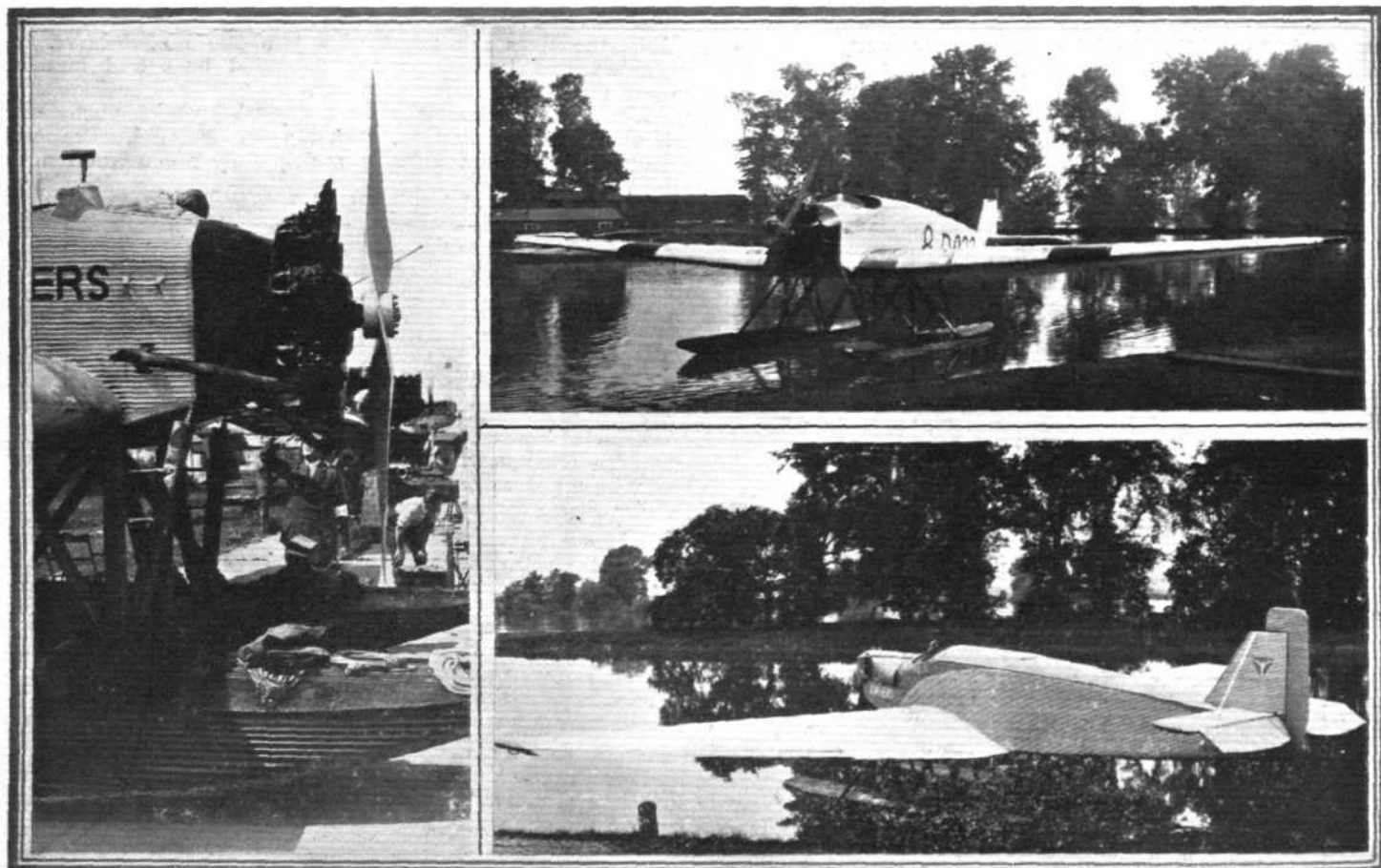


which the Junkers Works have specialised for years. The engine fitted in the W.33 is a 310 h.p. Junkers type L.5, and the wing area is 43 sq. m. (463 sq. ft.). The weight empty is given as 1,383 kgs. (3,043 lbs.), and the total loaded flying weight as 2,100 kgs. (4,620 lbs.). A top speed of 185 km./hr. (115.6 m.p.h.) is claimed.

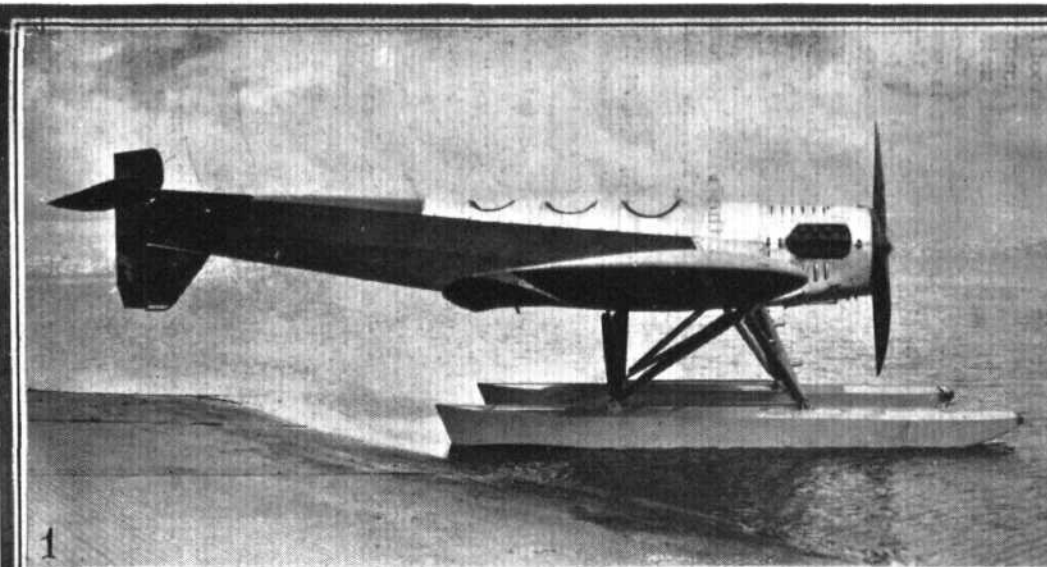
No. 8, the *Junkers W.34*, is identical with the type W.33, except for its engine, which is a Gnome and Rhone "Jupiter."

The dimensions of the machine are the same, but the empty weight is 1,350 kgs. (2,970 lbs.), and the total loaded weight the same, i.e., 2,100 kgs. (4,620 lbs.). A top speed of 205 km./hr. (128 m.p.h.) is claimed for the W.34.

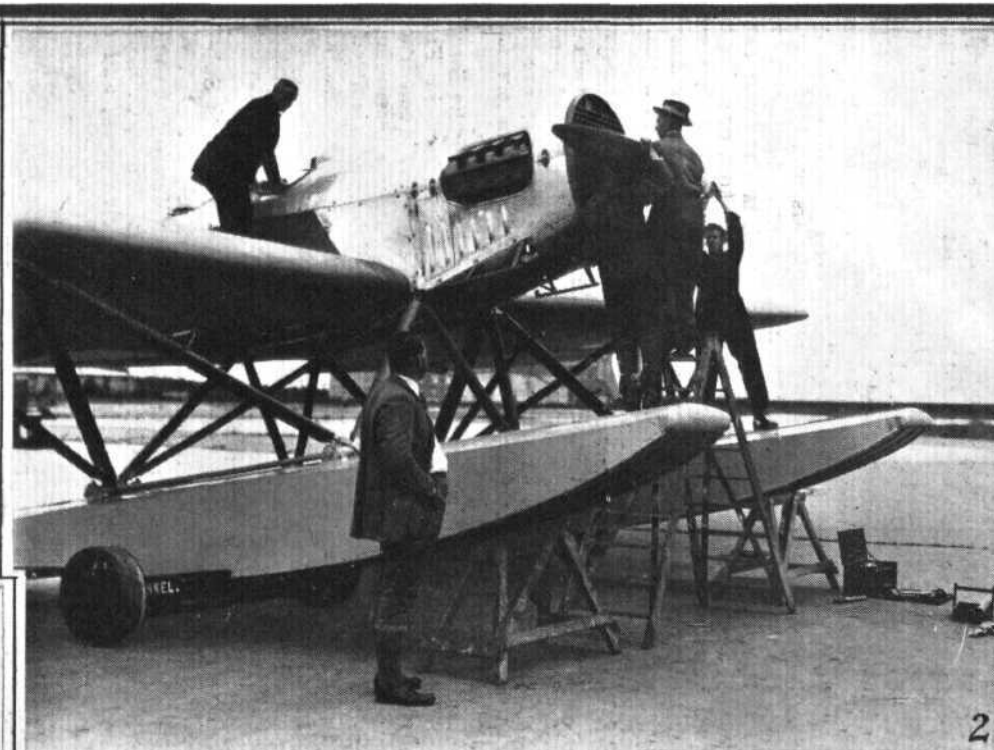
The German constructor represented by the greatest number of machines in the competition is Ernst Heinkel, also a pioneer of aircraft design and construction, who has entered no less than five machines of three different types.



JUNKERS AT WARNEMÜNDE: The machine shown in the lower right-hand corner is the type W.33, which has a 300 h.p. Junkers L.5 engine. Above is a photograph of the type W.34, similar to the W.33 except that it has a Bristol "Jupiter" engine. On the left is shown the nose of the W.34, illustrating the mounting of the "Jupiter." Note the Reed metal airscrew.



1



2



3



4

HEINKELS AT WARNE MÜNDE : Ernst Heinkel, one of the pioneers of German aircraft construction, is represented by five machines. Our photographs show : 1, the H.E.5 monoplane with Napier "Lion" engine. The nose and floats of this machine are shown in 2, while 3 shows the two biplanes, type H.D.24, which are fitted with 230 h.p. B.M.W. IV engines. The machine illustrated in 4 is also a type H.E.5, but is fitted with a Gnome and Rhone "Jupiter." The monoplane shown in 1 has been fitted with a Reed metal propeller for the competition, the process of fitting it being shown in 2.

No. 9, the H.E.5, is a low-wing monoplane, in which the wing is of the semi-cantilever type, of wood construction. The fuselage represents an innovation, as far as this designer is concerned, in that it is built up of steel tubing, with longerons and struts welded together and braced by piano wire or cables. Three seats are arranged one behind the other, but in the competition the last cockpit is covered over. The engine of No. 9 is a Napier "Lion," and the total wing area is 49 sq. m. (527 sq. ft.) and the weight empty, 1,640 kgs. (3,608 lbs.). The total loaded weight is 2,500 kgs. (5,500 lbs.), and a top speed of 207 km./hr. (129 m.p.h.) is claimed.

No. 10, the Heinkel H.E.5, is similar in every respect to No. 9, but is fitted with a Gnome and Rhone "Jupiter." Its empty weight is 1,500 kgs. (3,300 lbs.) and total loaded weight 1,920 kgs. (4,224 lbs.). A top speed of 200 km./hr. (125 m.p.h.) is claimed.

Nos. 11 and 12, the Heinkel H.D.24's, are both tractor biplanes of normal type, and both are fitted with 230 h.p. B.M.W. IV. engines. The type was originally designed for school work, but is presumably thought to meet also the requirements for a postal seaplane. Like the monoplanes, the fuselage is of welded steel-tube construction. The wing area of the H.D.24 is 50.1 sq. m. (539 sq. ft.), the weight empty is 1,350 kgs. (2,970 lbs.), and the total loaded weight 1,960 kgs. (4,312 lbs.). The top speed is stated to be 160 km./hr. (100 m.p.h.).

No. 13, the W.3, is something of a "dark horse," its constructor, Ernst Gerbrecht, being unknown to us. As far as can be gathered, however, this machine is a monoplane of

somewhat crescent-shaped plan form, and fitted with three Thulin rotary engines of 110 h.p. each. It takes a courageous man to enter such a machine in a modern competition. As far as we can gather, the total loaded weight of this machine is estimated at 2,800 kgs. (6,160 lbs.), and the speed is claimed to be 150 km./hr. (94 m.p.h.). We wonder whether it was by accident that this machine was given number 13.

Nos. 14 and 15, the Dornier Do.E.72's, are both alike, and are both fitted with "Jupiter" engines. Beyond this fact, however, we are not able to give particulars, as no information has reached us concerning them at the time of going to press. It may be taken, however, that the E in the type letters indicates monoplanes, but whether of the float or flying boat type we are unable to say at the moment. This famous constructor, is not, however, likely to enter anything which is not sure to show up well, and we hope to be in a position to give particulars at a future date.

No. 16, the Junkers A.20, has been entered by the Severa Co. of Berlin, and is, like the W.33 and W.34, a twin-float seaplane of the low-wing monoplane type, of standard Junkers construction. No data relating to this machine are available, beyond the fact that the engine is a Junkers L.5 of 310 h.p.

No. 17, the Heinkel S.1, looks very similar to the Swedish-built S.1 monoplane, illustrated and described in FLIGHT some months ago, and as the Swedish company is constructing Heinkel machines under licence, the "family resemblance" is not surprising. The engine with which the S.1 is fitted is a Rolls-Royce "Eagle IX," but no other information is available.

Banquet to Lieut.-Col. Sir Francis K. McClean

THE Royal Aero Club will give a banquet to Lieut.-Col. Sir Francis K. McClean, as a mark of appreciation of the honour of knighthood recently conferred upon him by His Majesty the King. Any friends, whether members of the Royal Aero Club or not, may attend. The banquet will be held at the Savoy Hotel, on Tuesday, July 27, 1926, at 7.30 for 8 o'clock. Tickets, £1 1s. each.

At this banquet the King's Cup will be presented to Sir Charles Wakefield and the additional prizes to the various winners.

Good Work by Siddeley "Jaguar"

IN the account of a race like that for the King's Cup, the merits of individual performances are somewhat apt to be lost sight of the more so in the case of machines not gaining first or second place. One such example was the performance of Squadron-Leader Jones, who piloted the A.D.C.1, fitted with Armstrong-Siddeley "Jaguar" engine. On looking at the table of lap times published in last week's issue, one is struck by the regularity with which this machine covered the circuits. Thus the lap times, on the first day of the race, over the Cheltenham-Coventry circuit differed by 13 seconds only, while over the Martlesham-Cambridge circuit the difference was only two minutes. On the second day, a similar regularity was noted, and the total flying time over the 732 miles was 4 hours 51 mins. 2 secs. on the first day, and 4 hours 54 mins. 12 secs. on the second day. These figures speak well, not only of the pilot's navigation around the course, but also of the uniformly-steady running of the "Jaguar" engine. It should also be remembered that this machine was third in the handicap, and winner of Sir Charles Wakefield's £100 prize for the fastest time in the race.

Celebrating the King's Cup Win

ON Wednesday of last week, July 14, the de Havilland Aircraft Company and A.D.C. Aircraft, Ltd., celebrated, at a dinner at Prince's Restaurant, Piccadilly, the winning of the King's Cup Air Race by a de Havilland "Moth" fitted with A.D.C. "Cirrus" engine. A number of representatives of both firms, as well as others concerned, attended the function, which was of quite informal character, and during which no speeches were made. The dinner was also made the occasion for the handing over, by Capt. Broad, who piloted the winning aeroplane, of the Cup to Sir Charles Wakefield, Bart., the owner of the winning "Moth."

"Moths" for Ireland

ON July 12 a "flight" of four de Havilland "Moths" with "Cirrus" engines left Stag Lane Aerodrome for Baldonnel Aerodrome, Ireland, the machines having been purchased by the Irish Free State Government. The four "Moths" were piloted by Col. the Master of Sempill, Major H. Hemming, Capt. H. Broad, and Capt. F. T. Courtney, respectively, and the little flight reached its destination safely, having completed a relatively long journey over the sea without incident.

Royal Air Force Memorial Fund

THE usual fortnightly Meeting of the Grants Sub-Committee was held at Iddesleigh House, on July 15. Mr. Walter S. Field was in the Chair, and the other Member of the Committee present was Mrs. L. M. K. Pratt-Barlow, O.B.E.

The Committee considered in all twelve cases, and made grants to the amount of £138 4s. 8d.

Next Meeting August 5, at 2.30 p.m.

Merriam's Return to Aviation

HIS many friends will be pleased to learn that Captain F. Warren Merriam, who had to give up his glider school in the Isle of Wight owing to ill-health, is now greatly improved, and that he proposes to come back to aviation, not, it is true, in actual piloting, for the time being at any rate, but as an independent aeronautical consultant. It is scarcely necessary for us to remind our readers that Capt. Merriam has had almost unequalled experience of aviation from its earliest days, and that, during the war, he taught more pupils to fly than any other instructor. He has thus had practical experience of all phases of flying, and his advice on almost every conceivable subject connected with aviation should be worth having. Pending the opening of a London office, Captain Merriam can be got in touch with either at 52, St. James's Road, Croydon, or at the Trust House Hotel on the Croydon Aerodrome, or at the Royal Aero Club.

Marquis de Pinedo's Accident

WHILE taking off for a trial flight at Marina di Pisa, on July 20, the Marquis de Pinedo, the famous Italian aviator, met with an accident, his flying-boat overturning and one member of the crew, Major Conti being drowned. The Marquis himself and the others on board sustained slight injuries. The machine which is stated to be intended for a flight around the world, was a Dornier "Wal," of the type used by Amundsen last year on the flight towards the North Pole.

Another Fine French Flight

THE non-stop record flight of the brothers Arrachart has not been permitted to stand for long. Starting from Paris on July 14, in a Breguet biplane with 500-h.p. Hispano-Suiza engine, Captain Girier reached Omsk after flying for 29 hours. The distance is given as 4,700 km. (2,920 miles), so that the average speed was just about 100 miles per hour.

The Loss of the "Shenandoah"

IN the August issue of the *Journal of the American Society of Naval Engineers* will appear an article entitled "Technical Aspects of the Loss of the U.S.S. *Shenandoah*," compiled from the record of the Court of Inquiry. This publication consisting of 216 pages, with numerous illustrations, has been authorised by the Navy United States Department. Reprints of this article may be obtained from the secretary of the Society, Navy Department, Washington, D.C. Orders should be entered promptly, as the number of reprints made will depend on the orders received. Price \$1.

THE FRENCH LIGHT 'PLANE COMPETITION (AUG. 9-15)

17 Machines Entered

THE entries list for the French light 'plane competition has now closed, and it is satisfactory to be able to record that no less than 17 machines have been entered, representing six countries. But for the fact that this competition is confined to nations represented on the F.A.I. there would probably have been German machines as well, but until Germany is admitted to the F.A.I. it was not possible to accept German entries. The entrants, given in the order of entries, are:—

1. Mrs. Elliott-Lynn (Great Britain).
2. Pander Aeroplane Works (Holland).
3. Pander Aeroplane Works (Holland).
4. Milos Bondy (Czechoslovakia).
5. Milos Bondy (Czechoslovakia).
6. Edouard Albert (France.)

7. Edouard Albert (France).
8. S.A.B.C.A. (Belgium).
9. S.A.B.C.A. (Belgium).
10. De Havilland Aircraft Co. (Great Britain).
11. Costruzioni Aeronautiche Italiana (Italy).
12. Costruzioni Aeronautiche Italiana (Italy).
13. Joseph Albessard (France).
14. H. and M. Farman (France).
15. Rene Caudron (France).
16. Roques-Lefolcavez (France).
17. Soc. An. des Etablissements Lumiere (France).

The various countries will thus be represented by the following number of machines: Great Britain, 2; Holland, 2; Czechoslovakia, 2; Belgium, 2; Italy, 2; and France, 7.

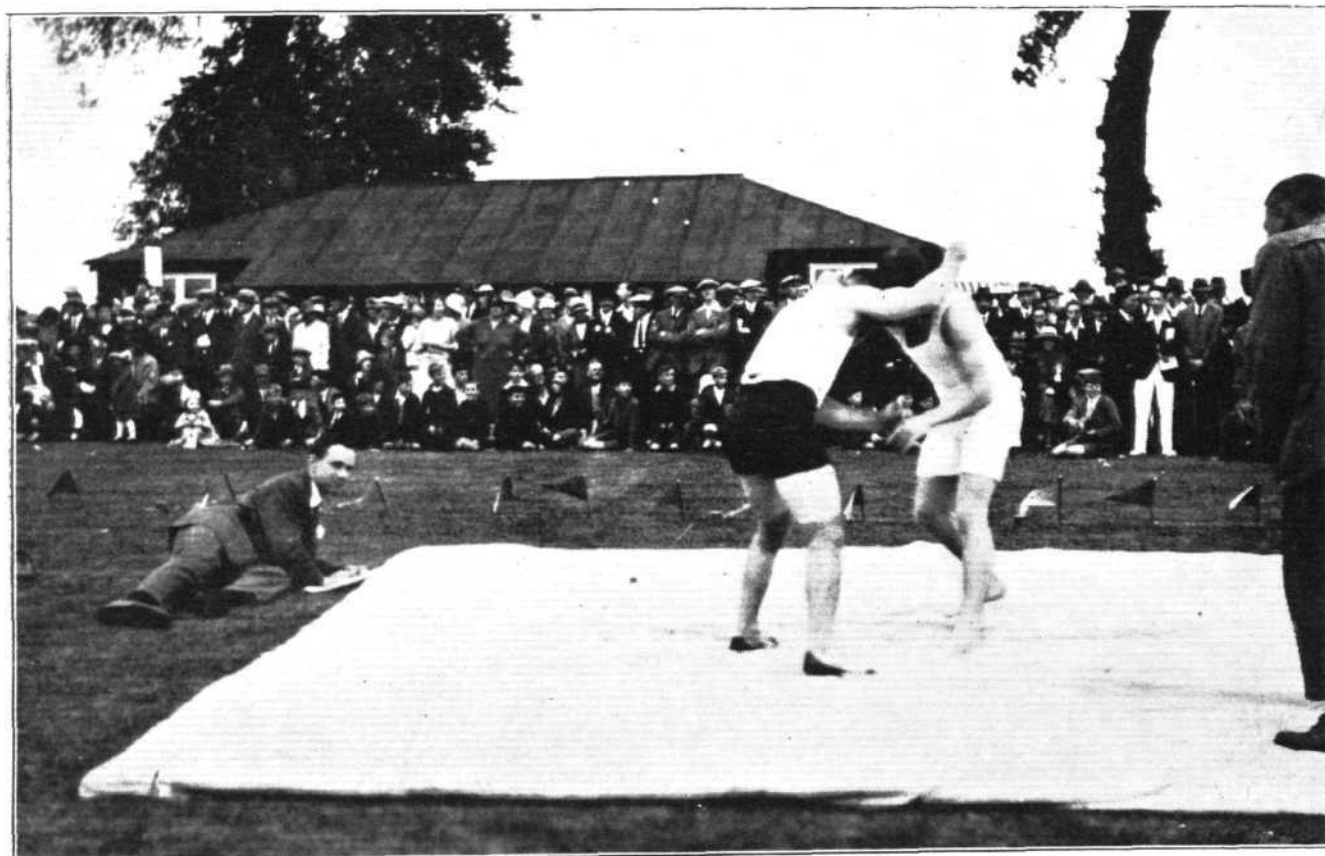
Films of Great Italian Flights

On July 14 the Air League of the British Empire invited pretty well everyone who is interested in flying to the Royal Society of Arts to see some films of notable Italian achievements in the air and to hear an address by the Baron Bernado Quaranta di San Severino. Sir Sefton Brancker was in the chair, and, despite the steamy heat of the day, the hall was very full indeed. Sir Sefton explained that the Baron was visiting England on a mission to promote mutual goodwill between the Italian and British peoples, and one of the first films to appear showed Signor Mussolini, Minister for Air in the Italian Cabinet, writing a letter of goodwill to the Baron on his self-imposed mission. Pictures of Sir Samuel Hoare and Major H. G. Scott were also shown, and then a map of the track of R.34 across the Atlantic. Next we followed Capt.

Arturo Ferrarin from Rome to Tokyo, and the views of Delhi from the air made some of the audience feel home-sick. Then we joined in the crowd by the Tiber to welcome back the Marchese de Pinedo from Australia and Japan; and afterwards saw the Norge at her home station before she left for Pulham. Constant applause showed how heartily the audience admired the feats of the gallant Italian airmen.

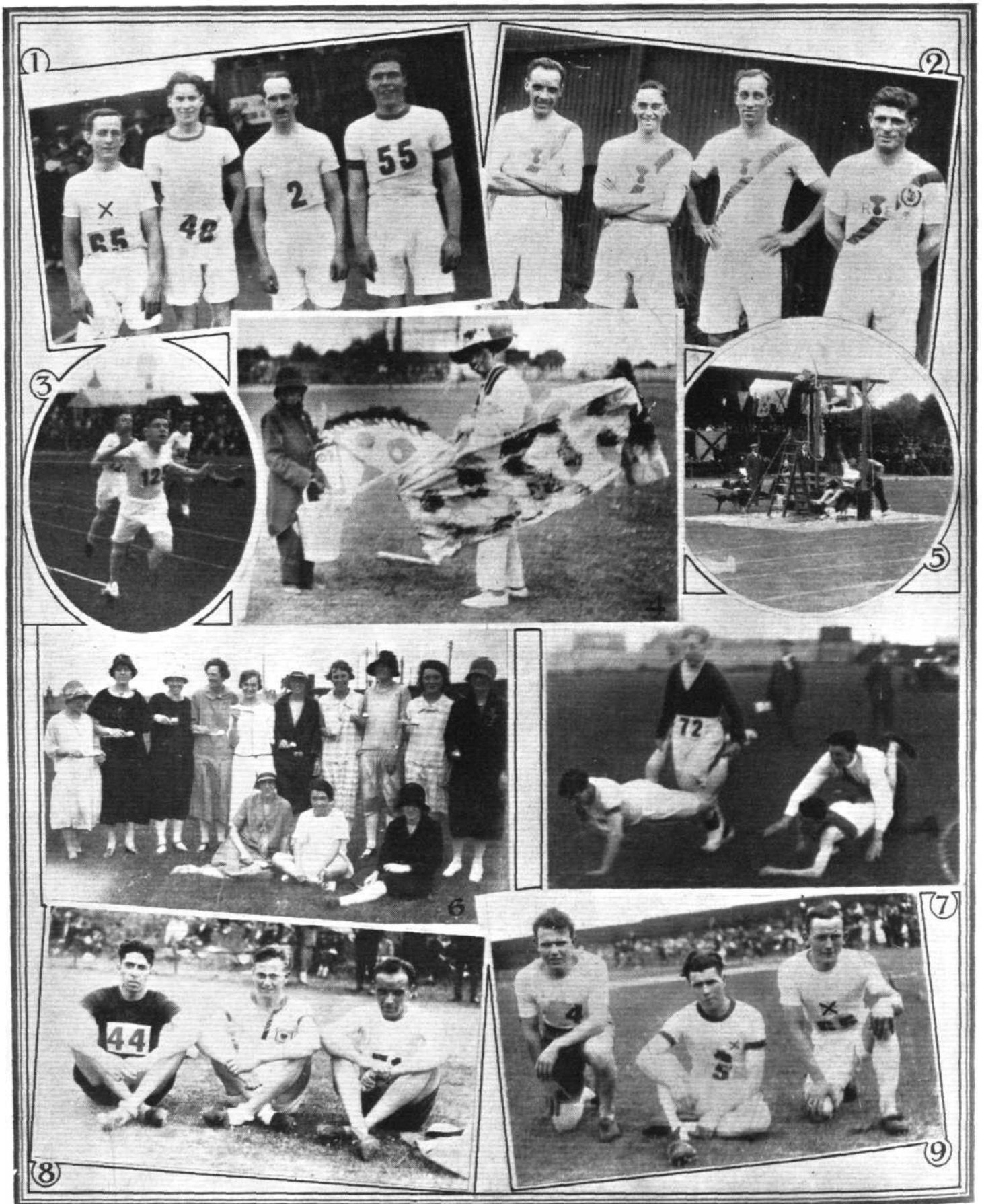
R.A.F. Flying Accident

THE Air Ministry regrets to announce that as the result of an accident at Cranwell, Sleaford, Lincs, to a Sopwith Snipe on July 15, 1926, Flight-Cadet Humphrey Francis Morell Pickford, the pilot and sole occupant of the aircraft, was severely injured and died later in the day.



HAWKER SPORTS: The Hawker A.C. held their annual sports at Kingston on July 10. A large crowd witnessed some fine contests, the Staff winning the Aggregate Cup, the Tool Room the Sopwith Cup, and the Machine Shop the Sigrist Cup. The open events were very interesting, the fine running of the East Surrey Regiment in the relay race and the team work of the London Fire Brigade in the tug-of-war being very commendable. At the conclusion of the racing, Mrs. F. Sigrist presented the prizes, and afterwards dancing continued until a late hour. Those present included: Mr. and Mrs. F. Sigrist, Mr. and Mrs. F. I. Bennett, Mr. F. S. Spriggs, Flt.-Lieut. and Mrs. P. N. S. Bulman, Mr. and Mrs. S. Camm, Mr. and Mrs. H. Chandler, Mr. and Mrs. E. C. Newman, Messrs. Mace, Seller, Baigent, Sutton, Whitehorn (Hon. Sec.), etc.

SPORTS AT SHORT'S



SHORT'S SPORTS CLUB: The annual athletic sports of Short Brothers were held on July 10. Our photographs show: 1, Winning team of inter-shop relay (fitters): left to right, V. Tyler, L. Pateman, H. Bartlett and E. Sweatman, for "Staff" challenge cup. 2, R. E. Depot Batt., winners of North Kent Senior Relay Championship. 3, R. Whitty, Bryson Road School, Gillingham, winning the Aero challenge cup presented by Short Brothers. 4, Clowns. 5, Tilting the bucket. 6, Ladies' egg and spoon race. 7, Finish of wheel-barrow race. 8, Competitors of the club. 9, Scratch men of half-mile closed—F. Blee, E. Brisley and V. Tyler. (See page 456.)

THE ROYAL AIR FORCE

London Gazette, July 6, 1926

Memorandum

Flying Officer F. M. Miller relinquished his temp. commn. on ceasing to be empld. with the Elec. Serv. Works Coy. (July 16).

Reserve of Air Force Officers

J. S. K. Inskip is granted a commn. in Class A.A. General Duties Branch, as a Pilot Officer on probn. (June 21).

The follg. Flying Officers relinquish their commns. on completion of service:—A. W. Day (April 20); C. G. Jenyns (June 26). Pilot Officer C. V. Hicks relinquishes his commn. on account of ill-health (July 7).

London Gazette, July 13, 1926

General Duties Branch

Flying Off. R. R. Greenlaw is granted a permanent commn. in this rank (June 1); R. G. Hart, M.C., is granted a short service commn. as a Flying Off., with effect from and with seny. of July 2; Sqdn. Ldr. C. S. Wynne-Eyton, D.S.O., is placed on retired list at his own request (June 25); Flight Lt. I. M. Matheson is transferred to Reserve, Class A (July 14); Flying Off. L. R. Shaw resigns his short service commn. (July 11).

Accountant Branch

Flying Off. N. E. D. Hutchinson is transferred to Reserve, Class C (July 10).

Medical Branch

Flying Off. J. D'I. Rear ceases to be secd. to the Royal Sea Bathing Hospital, Margate (July 1).

Memorandum

The permission granted to Sec. Lt. W. Drage to retain his rank is withdrawn on his enlistment in the Army (June 22).

Reserve of Air Force Officers

The follg. are granted commissions on probation in the General Duties Branch in ranks stated:—

Class A.—Flying Officers.—S. Turner, D.F.C., S. F. Woods (July 13).

Class A.A.—Pilot Officer.—T. J. Tingley (June 29).

The follg. are confirmed in rank:—Pilot Officer S. W. White (June 16); Pilot Officer R. N. Bullock (June 17); Flying Officer T. Buchanan (July 12). The follg. Flying Officers are transferred from Class A to Class C: H. E. W. Macandrew (April 20); W. H. Statham (May 8); S. A. Dismore (May 15); D. B. C. Fulton (June 19); G. W. Dean (June 25); C. McL. Reid (July 4). Flight Lt. H. O. Barnaby, M.B.E., is transferred from Class B to Class C (June 14); Flying Officer R. G. Hart, M.C., resigns his commission (July 2).

The follg. Flying Officers relinquish their commissions on completion of service (May 22):—H. W. Frith, W. F. A. Snell.

ROYAL AIR FORCE INTELLIGENCE

Appointments.—The following appointments in the Royal Air Force are notified:—

General Duties Branch

Wing Commanders: W. R. Read, M.C., D.F.C., A.F.C., to No. 2 Apprentices Wing, Halton, to command; 1.7.26. A. C. Wright, A.F.C., to No. 502 Sqdn., Aldergrove, to command; 1.5.26. B. E. Sutton, D.S.O., O.B.E., M.C., to No. 1 Apprentices Wing, Halton, to command; 15.7.26.

Squadron Leaders: K. C. Buss, to No. 2 Flying Training Sch., Digby; 24.6.26. F. H. W. Guard, C.M.G., C.B.E., D.S.O., to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 29.5.26. C. F. Gordon, O.B.E., M.C., D.F.C., to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 13.5.26. G. C. Bailey, D.S.O., to R.A.F. Depot, Uxbridge; 25.6.26.

Flight Lieutenants: A. J. Osborn, to Electrical & Wireless Sch., Flowerdown; 12.7.26. H. Hackney, to Marine Aircraft Experimental Estab., Felixstowe; 16.7.26. J. Oliver, A.F.C., to Home Aircraft Depot, Henlow; 12.7.26. N. M. S. Russell, to H.Q., Iraq Command; 2.7.26.

Flying Officers: J. Bullock, to Home Aircraft Depot, Henlow; 13.7.26. F. S. Wainwright, to Elec. and Wireless Sch., Flowerdown; 13.7.26. W. H. Jinman, M.B.E., to R.A.F. Base, Calshot; 16.7.26. R. W. Steele, to No. 55 Sqdn., Iraq; 12.6.26. W. W. Bradford, to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 14.6.26. J. P. Huffman, V.C., to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 9.6.26. R. Mundy-Cox, to R.A.F. Base, Calshot; 7.7.26. P. J. A. Hume-Wright, to Sch. of Naval Cooperation, Lee-on-Solent, on transfer to Home Estab.; 14.6.26. C. I. G. Tristram, to No. 11 Sqdn., Netheravon; 22.6.26. R. Jones, to No. 31 Sqdn., India; 4.6.26. C. Sutton, to No. 47 Sqdn., Egypt; 26.6.26. J. B. H. Rogers, to No. 5 Sqdn., India, instead of to No. 31 Sqdn., India, as previously notified; 15.5.26. H. V. David, to No. 1 Stores Depot, Kidbrooke; 16.7.26. W. G. Pudney, to No. 43 Sqdn., Henlow; 15.7.26. R. G. Hart, to No. 24 Sqdn., Kenley, on appointment to a short service commn.; 2.7.26.

Stores Branch

Flight Lieut.: J. London, to No. 3 Sqdn., Upavon; 19.7.26.

Flying Officers: F. H. Bedford, M.C., M.M., to Air Ministry; 15.7.26. W. H. Bowden, to No. 25 Sqdn., Hawkinge; 1.7.26.

Flying Officer: W. Liniker, to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 20.6.26.

Accountant Branch

Flying Officer: S. C. George, to No. 4 Flying Training Sch., Egypt; 14.6.26.

Flying Officer: H. Hedderwick, to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 28.5.26.

Medical Branch

Squadron Leader (Dental): J. G. Worsley, to H.Q., Inland Area, Stanmore, on appointment to Temp. Comm., from Army Dental Corps; 1.7.26. J. G. Worsley, to R.A.F. Depot, Uxbridge; 5.7.26.

Flight-Lieutenant: V. S. Ewing, M.B., to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 13.6.26.

Flight Lieut. (Dental): T. K. Place, to No. 5 Flying Training Sch., Sealand, on appointment to Temp. Comm., from Army Dental Corps; 1.7.26. H. J. Procter, to R.A.F. Depot, Uxbridge, on appointment to Temp. Comm., from Army Dental Corps; 1.7.26. H. O. Sutherland, to H.Q., Cranwell, on appointment to Temp. Comm., from Army Dental Corps; 1.7.26.

Flying Officers: R. F. G. Dickson, to R.A.F. Depot, Uxbridge, on transfer to Home Estab.; 5.6.26. J. D'I. Rear, to Research Lab. and Medical Officers' Sch. of Instruction, London; 1.7.26. L. Freeman, to Research Lab. and Medical Officers' Sch. of Instruction, London, on appointment to a short service commn.; 1.7.26.

IN PARLIAMENT

Air Parcel Post

COLONEL DAY, on July 13, asked the Postmaster-General the number of parcels sent by air post through the Post Offices of Great Britain, either express or non-express, to Paris and Holland for the 12 months ended to the last convenient date.

Sir W. Mitchell-Thomson: For the 12 months ended June 30 last, the numbers were as follows: To Paris, 3,458; to Holland, 1,903.

Air Force List

COLONEL WOODCOCK asked the Secretary of State for Air how many copies of the Air Force List are printed each month; what is the annual cost of printing the same; and what number are sold on an average each month.

Viceunt Curzon: I have been asked to reply. The answer to the first part of the question is approximately 2,000 copies; to the second, £2,000; to the third, 675 copies.

Civil Aviation Garages

COLONEL DAY, on July 14, asked the Secretary of State for Air the number of garages built for privately-owned aeroplanes; and what steps are being taken in this regard by his Department with a view to popularising privately-owned aeroplanes of the Moth variety?

Captain Lord Stanley (for Sir S. Hoare): As regards the first part of the question, so far as I am aware the only case of the kind referred to by the hon. and gallant member is one in which a garage has been built to take six small folding aeroplanes. As regards the second part, I am not sure what the hon. and gallant member has in mind, but on the assumption that he is referring to facilities provided for the accommodation of privately-owned aeroplanes, the answer is that this class of aeroplane can be housed at Government civil aerodromes on payment of the usual scale of charges, which amount for the Moth type to 2s. 6d. for a night's accommodation, with 1s. landing fee or £2 10s. per month.

Afghanistan Air Force

SIR F. HALL asked the Secretary of State for Air what is the present strength of the Air Force of the Afghanistan Government in machines and men; what is the increase compared with 1923; whether the training and development of this force is under native direction; and, if not, what is the nationality of those principally responsible for advising the Afghanistan authorities in the matter?

Lord Stanley: As regards the first and second parts of the question, the present strength of the Afghan Air Force is understood to be approximately 12 machines and 36 men, nearly all the men being Russians. These machines represent a net increase since 1923, when, although there were a few machines in Afghanistan, they were unworthy, for which reason they are not included in the figures for present strength given above. As regards the last part,

the force is commanded by an Afghan, but Russians are advising in regard to training and development.

SIR F. HALL: Is not this a menace to the peace of India?

MR. SPEAKER: The Noble Lord cannot be expected to answer that question.

"British Gazette" Distribution Cost.

LIEUT.-COMMANDER KENWORTHY asked the Chancellor of the Exchequer whether the £16,000 allocated as the cost of producing the official organ known as the *British Gazette* includes the cost of its distribution by motor car and aeroplane; and, if so, what sum has been allocated for payment of this transport?

MR. McNEILL: No allowance is made in this estimate for the cost of the aeroplane service which was regarded by the Air Ministry as taking the place of experimental and practice flying and it was only practicable to earmark an expenditure of £450 on motor car distribution as definitely on the service of the *British Gazette*. The bulk of the distribution was carried out by volunteers receiving free petrol only.

Communist Propaganda

LIEUT.-COMMANDER HENEAGE (for Major Tasker) asked the Secretary of State for Air whether his attention has been drawn to document 33 in the recent Blue Book on Communist Papers, wherein it is stated that there are 11 known members of the Communist factory group employed in the Kidbrook Air Force Works; and what steps he has taken, or proposes to take, in the matter?

Lord Stanley: The matter is under consideration.

Hendon Display and Parliamentary Tea Enclosure

COLONEL DAY asked the Secretary of State for Air the approximate cost of the tea provided in the Parliamentary enclosure on the occasion of the Royal Air Force display at Hendon; and to what fund will such expenses be charged?

SIR S. HOARE: The answer to the first part of the question is approximately £40; to the second, that the charge is one against the receipts of the display, public funds not being affected.

Officers Employed at the Ministry

MR. W. HIRST asked the Secretary of State for Air the number of flying officers, flight lieutenants and squadron leaders employed on duties of a purely clerical nature requiring no special qualifications, at the Air Ministry; if they are in receipt of Royal Air Force pay and allowances comparable with officers of the same ranks on the effective strength of the Royal Air Force; and whether this represents additional cost to the Department?

SIR S. HOARE: The answer to the first part of the question is none, and the other parts therefore do not arise. The Air Force officers at the Air Ministry are employed solely in posts in which service experience is demanded.

SPORTS AT SHORT'S

(Pictures on p. 454)

ON Saturday, the 10th inst., the employees of Short Bros. of Rochester held their ninth annual athletic sports, the venue being the ground of the Chatham United Services. The meeting attracted some 2,000 spectators, the weather being favourable although without much sunshine. The events were well patronised as regards entries, both by the employees and by visiting athletes in the open events. Some fast times were recorded and a burlesque side to the afternoon's enjoyment of pure sport was provided by a party of clowns.

The elementary schools of the Medway district provided probably the most exciting events on the programme. The local juveniles were enthusiastically urged by the partisans of the schools represented and the success of R. Witty of Byron Road Boys' School, Gillingham, who last year was second in this event, was a very popular result. The silver challenge cup is held by the successful school for the year and valuable prizes are also awarded.

A special attraction in the North Kent Senior Relay Championship was fully appreciated by the spectators, being won by the Depot Battalion Royal Engineers with the City of Rochester and Dartford Harriers having second and third place respectively. The Victor Ludorum medal presented by Chief Constable Arnold of the Rochester City Police Force was won by J. T. Pateman for the second consecutive year.

At the conclusion of the meeting splendid prizes to the value of nearly £100 were presented to the winners by Mrs. A. E. Short. Mr. A. Craig, Sports Secretary for the firm, proposed a vote of thanks to Mrs. Short for so kindly consenting to present the prizes.

Examination for Aerial Navigators

AN examination for First and Second Class Aerial Navigators' licences will be held at the Air Ministry, Gwydyr House, Whitehall, on Monday and Tuesday, September 6 and 7, 1926.

Application forms, the syllabi, and conditions of examination may be obtained on application to the Secretary, Air Ministry (A. & L.), Gwydyr House, Whitehall, London, S.W. 1.

Formal applications to sit at this examination should be received at the above address not later than August 30, 1926. Candidates should give with their applications full details of any qualifications and experience they already possess.

Before a licence can be issued, candidates will have to pass a medical examination at the Central Medical Board, 5-6, Clements Inn, London, W.C. 2. Arrangements can be made for this examination to take place on September 8, 1926, if candidates make early application to be examined on that day. (No. 38 of 1926.)

R.A.F. Flying Accidents

THE Air Ministry regrets to announce that, as the result of an accident near Abu Sueir, Egypt, to a D.H.9A, of No. 4 Flying Training School, Abu Sueir, on June 29, Pilot Officer Noel Jardin Anderson and No. 335447, Leading Aircraftsman Edward Ernest Gregg, the pilot of the aircraft, were killed.

As the result of an accident at Weston Zoyland, Somerset, to a Fairey Fawn of No. 100 Squadron, Weston Zoyland, on July 2, Flying Officer Herbert Victor Alder, the pilot of the aircraft, was slightly injured and No. 349176 L.A.C. Frederick William Miller was seriously injured. L.A.C. Miller died of his injuries on July 3, 1926.

Cellon in Cairo-Cape-England Flight

FOLLOWING is the text of a letter received by Cellon, Ltd., from the Fairey Aviation Company:—

"We are writing to inform you that we have examined the four Fairey III.D aircraft after their successful termination of the Cairo-Cape-Cairo-London flight under Wing-Commander C. W. H. Pulford, O.B.E., A.F.C., R.A.F., and find that the Cellon dope was in excellent condition throughout, and showed no signs of cracking or peeling.

"Furthermore, all fabric-covered surfaces were still quite taut and in substantially the same condition as when they left our works.

"During this flight of over 14,000 miles the aircraft remained in the open over almost the entire period and were subjected to extreme variations in climatic conditions."

New Appointments at Vickers

Mr. A. CARTWRIGHT has been appointed a director of Vickers Limited. Mr. G. G. Sim has been appointed secretary of Vickers Limited.

Air Chief's Parachute Drop

ON July 10 Air Marshal Sir John Salmond made a parachute descent from an aeroplane flying 2,000 ft. above Northolt aerodrome. He made a smooth descent and landed safely but somewhat close to some palings.

R.A.F. Lawn Tennis

The Times for July 14 states that, for the first time since the Inter-Services Lawn Tennis Championship has been played, the Royal Navy won, and for the first time the Army have lost the title. The totals at the end of the second day's play at Wimbledon on July 13 were: Royal Navy, won 7, lost 5; Army, won 6, lost 6; R.A.F., won 5, lost 7.

Czechoslovak Race

THE race round the Czechoslovak Republic, held on July 5 and organised by the Aero Club R.C.S., included a flight over about 1,100 kms. with obligatory landings at Olomouc and Brno, Prague being the starting and finishing point. The competing aeroplanes had thus to fly over all Czechoslovakian countries and to overcome, especially in the southern part, heavy rainy weather. The Avia B.H.9, two-seater low-wing monoplane, fitted with 60 h.p. Walter engine, was piloted by Capt. Vlček and finished the course in net time of 7 hrs. 56 mins. 24.7 secs., after the times for refuelling at Olomouc and Brno had been deducted. This time corresponds to an average speed of about 139 kms. per hour.

A Tribute to Cerric Lacquer

DESPITE the varying temperatures through which it has been carried, the Cerric lacquer on the Napier engines fitted to the Fairey machines which recently made the flight from Cairo to the Cape and then back to Cairo and on to England looks as good as the day they started. The engines have flown without change over a total distance of 14,000 miles, and have been through tropical heat, rain and sandstorms. That Cerric lacquer will stand up to these conditions, in addition to the actual heat of the engines, is a wonderful tribute to its sterling qualities.

PUBLICATIONS RECEIVED

Transport Aviation. By Archibald Black. Simmons-Boardman Publishing Co., 34, Victoria Street, London, S.W. Price 12s. 6d.

Patents for Inventions. By Benj. T. King, C.I.M.E. King's Patent Agency, Ltd., Wardrobe Chambers, 146A, Queen Victoria Street, London, E.C.

L'Année Aéronautique, 1925-1926. By L. Hirschauer and Ch. Dollfus. Dunod, 92, Rue Bonaparte, Paris. Price 30 fr.

Report on Civil Aviation for the year 1925. Dominion of Canada. Department of National Defence, Ottawa, Canada. Price 25 cents.

AERONAUTICAL PATENT SPECIFICATIONS

Abbreviations: Cyl. = cylinder; i.c. = internal combustion; m. = motor. The numbers in brackets are those under which the Specifications will be printed and abridged, etc.

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